

1 Table S8. List of taxa, voucher specimens, and DNA sequences analyzed. Museum codes follow Sabaj (2018).

2 Superfamily	3 Family	Voucher museum and	Voucher tag or	Tissue catalog	Country	Basin: Sub-basins
4 Terminal taxon	In Tree As:	catalog number	other identifier	number		
5 Alestoidea Cockerell 1910						
6 Alestidae Cockerell 1910						
7 <i>Alestopetersius hilgendorfi</i> (Boulenger 1899)*		AMNH 242460	AMNH 034-3321		Democratic Republic of the Congo	Lac Ikenge
8 <i>Alestopetersius tumbensis</i> (Hoedeman 1951)		AMNH 247033	AMNH 052-5189		Democratic Republic of the Congo	Congo River
9 <i>Bathaethiops greeni</i> (Fowler 1949)*		AMNH 242750	AMNH 024-2395		Democratic Republic of the Congo	Luilaka River
10 <i>Brycinus grandisquamis</i> (Boulenger 1899)		AMNH 257862	AMNH 115-11429		Democratic Republic of the Congo	Ndolo
11 <i>Bryconalestes longipinnis</i> (Günther 1864)		AUM 59705	Guinea-0560	AUFT 5548	Republic of Guinea	Nianda River : St.Paul River
12 <i>Hydrocynus goliath</i> Boulenger 1898		AMNH 239463	AMNH 022-2138		Republic of the Congo	Congo, near Brazzaville
13 <i>Micralestes acutidens</i> (Peters 1852)		AUM 51513	AFR0013	AUFT 5674	Democratic Republic of the Congo	Congo River : Atlantic Ocean
14 <i>Rhabdalestes septentrionalis</i> (Boulenger 1911)*		AMNH 257107	AMNH 113-11282		Guinea	Mong River
15 Hepsetidae Hubbs 1939						
16 <i>Hepsetus odoe</i> (Bloch 1794)		AUM 56869	JWA192	AUFT 5790	Cameroon	Congo River
17 Erythrinioidea Valenciennes 1847						
18 Erythrinidae Valenciennes 1847						
19 <i>Hoplerythrinus unitaeniatus</i> (Spix & Agassiz 1829)		AUM 48549	G07-341	AUFT 4875	Guyana	Rio Branco : Rio Negro : Rio Amazonas
20 <i>Hoplias aimara</i> (Valenciennes 1847)		AUM 47950	G07-207	AUFT 4938	Guyana	Essequibo River
21 Characoidea Latreille 1825						
22 Chalceidae Fowler 1958						
23 <i>Chalceus epakros</i> Zanata & Toledo-Piza 2004		AUM 48194	G07-711	AUFT 3601	Guyana	Rupununi River : Essequibo River
24 Characidae Latreille 1825						
25 <i>Nematobrycon palmeri</i> Eigenmann 1911		tba ROM	MK-057		Colombia	Amazonas
26 <i>Petitella georgiae</i> Géry & Boutière 1964		tba ROM	MK-060		Peru	Amazonas: Nanay
27 Curimatoidea Gill 1858						
28 Anostomidae Günther 1864						

29	<i>Abramites hypselonotus</i> (Günther 1868)	G. Orti	GO-77	GO-77	locality unknown	locality unknown
30	<i>Anostomus ternetzi</i> Fernández-Yépez 1949	AUM 48209	G07-749	AUFT 3075	Guyana	Rupununi River : Essequibo River
31	<i>Laemolyta proxima</i> (Garman 1890)	AUM 47859	G07-102	AUFT 3059	Guyana	Rupununi River, at Kwatamang landing
32	<i>Leporinus brunneus</i> Myers 1950	AUM 43799	V5389	AUFT 3071	Venezuela	Río Negro : Amazon River
33	<i>Leporinus ortomaculatus</i> Garavello 2000	AUM 43964	V5582	AUFT 3065	Venezuela	Río Orinoco
34	<i>Leporinus striatus</i> Kner 1858	AUM 43977	V5587	AUFT 3064	Venezuela	Río Orinoco
35	<i>Petulanos spilaclistron</i> (Winterbottom 1974)	AUM 44717	G5207	AUFT 3057	Guyana	Río Branco : Río Negro
36	<i>Pseudanos winterbottomi</i> Sidlauskas & Santos 2005	AUM 51124	V5288	AUFT 3084	Venezuela	Río Ventuari : Río Orinoco
37	<i>Schizodon vittatus</i> (Valenciennes 1850)	AUM 35502	T2417		Guyana	Essequibo: Rupununi
38	<i>Synptolaemus latofasciatus</i> (Steindachner 1910)	AUM 43977	V5587	AUFT 3064	Venezuela	Río Orinoco
39	Chilodontidae Eigenmann 1903					
40	<i>Caenotropus labyrinthicus</i> (Kner 1858)	AUM 43784	V5381	AUFT 3096	Venezuela	Río Negro : Amazon River
41	Curimatidae Gill 1858					
42	<i>Curimata roseni</i> Vari 1989	ANSP 189094	V071	ANSP t1311	Venezuela	Orinoco: Ventuari
43	<i>Curimatopsis cryptica</i> Vari 1982	ANSP 189091	7057	ANSP t1308	Suriname	Suriname: Coropinae
44	<i>Cyphocharax abramoides</i> (Kner 1858)	AUM 42957	V5411		Venezuela	Orinoco
45	<i>Psectrogaster ciliata</i> (Müller & Troschel 1844)	ANSP 189093	V072	ANSP t1309	Venezuela	Orinoco: Ventuari
46	Cynodontidae Eigenmann 1903					
47	<i>Cynodon gibbus</i> (Spix & Agassiz 1829)	ANSP 182523	P6002	ANSP t4570	Peru	Amazonas: Nanay
48	<i>Cynodon gibbus</i> (Spix & Agassiz 1829)	ROM (no voucher)	ROM T11775		Venezuela	Río Cinaruco
49	<i>Cynodon gibbus</i> (Spix & Agassiz 1829)	AUM 44336	G5013	AUFT 3244	Guyana	Essequibo River
50	<i>Cynodon meionactis</i> Géry, Le Bail & Keith 1999	ANSP 189129	7029	ANSP t1597	Suriname	Maroni: Litanie
51	<i>Cynodon meionactis</i> Géry, Le Bail & Keith 1999	ROM (no voucher)	ROM T19037		Suriname	Corantijn River
52	<i>Cynodon septenarius</i> Toledo-Piza 2000	ROM 101254	ROM T21832		Guyana	Essequibo: Rewa River
53	<i>Cynodon septenarius</i> Toledo-Piza 2000	UMMZ 250675	UMMZ T00852		Guyana	Essequibo: Rewa River
54	<i>Hydrolycus armatus</i> (Jardine 1841)	ANSP 191148	BO6116	ANSP t3931	Venezuela	Orinoco: Ventuari
55	<i>Hydrolycus armatus</i> (Jardine 1841)	ROM 088356	ROM T07147		Peru	Amazonas

56	<i>Hydrolycus armatus</i> (Jardine 1841)	ROM 101263	ROM T21613		Guyana	Essequibo: Mazaruni River	
57	<i>Hydrolycus scomberoides</i> (Cuvier 1819)	ROM 086143	ROM T06905		Guyana	Essequibo: Rupununi	
58	<i>Hydrolycus cf scomberoides</i> (Cuvier 1819)	ROM 088358	ROM T10758		Peru	Amazonas	
59	<i>Hydrolycus tatauaia</i> Toledo-Piza, Menezes & Santos 1999	ANSP 182629	P6337	ANSP t1804	Peru	Amazonas: Nanay	
60	<i>Hydrolycus wallacei</i> Toledo-Piza, Menezes & Santos 1999	ANSP 182425	P4316	ANSP t1600	Venezuela	Orinoco	
61	<i>Hydrolycus cf. wallacei</i> Toledo-Piza, Menezes & Santos 1999	PUJ			Colombia	Orinoco: Vaupes	
62	<i>Rhaphiodon vulpinus</i> Spix & Agassiz 1829	ANSP 198993	t4845	ANSP t13122	Venezuela	Orinoco: Apure	
63	Hemiodontidae Bleeker 1859						
64	<i>Anodus elongatus</i> (Agassiz 1829)*	ANSP 182300	P6248	ANSP t4542	Peru	Amazonas	
65	<i>Argonectes longiceps</i> (Kner 1858)*	ANSP 191353	BO6102	ANSP t4440	Venezuela	Orinoco: Ventuari	
66	<i>Argonectes longiceps</i> (Kner 1858)	ROM 093581	ROM T09783		Venezuela	Caño Tigre	
67	<i>Bivibranchia bimaculata</i> Vari 1985	ANSP 189149	6870	ANSP t1823	Suriname	Maroni: Lawa	
68	<i>Bivibranchia fowleri</i> (Steindachner 1908)	LIA 5666	t5701	ANSP t14127	Brazil	Amazonas: Xingu	
69	<i>Hemiodus cf. gracilis</i> (Günther 1864)	tba ROM			Colombia	Amazonas	
70	<i>Hemiodus quadrimaculatus</i> (Pellegrin 1909)	ROM 096949	ROM T18007		Guyana	Konawaruk River	
71	<i>Hemiodus unimaculatus</i> (Bloch 1794)	ANSP 195843	t2436	ANSP t10589	Brazil	Amazonas: Xingu	
72	<i>Micromischodus sugillatus</i> (Roberts 1971)	FMNH 189039	UCFJDBG 14101353		Brazil	Arapians River	
73	Parodontidae Eigenmann 1910						
74	<i>Parodon guyanensis</i> Géry 1960	AUM 48207	G07-709	AUFT 3605	Guyana	Rupununi River : Essequibo River	
75	<i>Parodon orinocensis</i> (Bonilla, Machado-Allison, Silvera, Chernoff, López & Lasso 1999)	AUM 43666	V5251	AUFT 3957	Venezuela	Río Negro : Río Amazonas	
76	Prochilodontidae Eigenmann 1909						
77	<i>Ichthyoelephas longirostris</i> (Steindachner 1879)	ANSP 192865	6609	ANSP t1305	Colombia	Magdalena	
78	<i>Prochilodus scrofa</i> Steindachner 1881	AUM 46587	P6077	AUFT 3735	Peru	Río Marañón	
79	<i>Semaprochilodus varii</i> Castro 1988	ANSP 187435	6929	ANSP t1240	Suriname	Maroni (Marowijne): Lawa	
80	Serrasalminae Bleeker 1859						
81	<i>Acnodon normani</i> Gosline 1951	<i>Acnodon normani</i> 1	ANSP 199545	B1548	ANSP t5742	Brazil	Amazonas: Xingu

In Figure 2 as:

82	<i>Acnodon normani</i> Gosline 1951	<i>Acnodon normani 2</i>	tba ROM	T26642		Brazil	Amazonas: Tocantins
85	<i>Acnodon oligacanthus</i> (Müller & Troschel 1844)	<i>Acnodon oligacanthus 1</i>	MNHN 1998-1585			Suriname	Maroni (Marowijne)
83	<i>Acnodon oligacanthus</i> (Müller & Troschel 1844)	<i>Acnodon oligacanthus 2</i>	ROM 100851	t19957		Suriname	Maroni (Marowijne)
84	<i>Acnodon oligacanthus</i> (Müller & Troschel 1844)	<i>Acnodon oligacanthus 3</i>	ROM 100851	t19959		Suriname	Maroni (Marowijne)
86	<i>Catoprion mento</i> (Cuvier 1819)	<i>Catoprion mento 1</i>	ROM 85951	t06600		Guyana	Pirara River (Ireng-Takutu)
87	<i>Catoprion mento</i> (Cuvier 1819)	<i>Catoprion mento 2</i>	ROM 95239	t17406		Brazil	Amazonas: Tapajós
88	<i>Catoprion mento</i> (Cuvier 1819)	<i>Catoprion mento 3</i>	UMMZ 250924	t01162		Guyana	Essequibo: Rupununi
89	<i>Colossoma macropomum</i> (Cuvier 1816)	<i>Colossoma macropomum 1</i>	ANSP 198904	t4874	ANSP t12983	Venezuela	Orinoco: Apure
90	<i>Colossoma macropomum</i> (Cuvier 1816)	<i>Colossoma macropomum 2</i>	ANSP 198904	t4876	ANSP t12984	Venezuela	Orinoco: Apure
93	<i>Colossoma macropomum</i> (Cuvier 1816)	<i>Colossoma macropomum 3</i>	INPA 10149	GO-216		Brazil	Rio Solimoes
91	<i>Colossoma macropomum</i> (Cuvier 1816)	<i>Colossoma macropomum 4</i>	PUJ tbd	MK-012		Colombia	Amazonas
92	<i>Colossoma macropomum</i> (Cuvier 1816)	<i>Colossoma macropomum 5</i>	PUJ tbd			Colombia	Amazonas
94	<i>Metynnis altidorsalis</i> Ahl 1923	<i>Metynnis altidorsalis 1</i>	ANSP 198246	t3646	ANSP t12536	Brazil	Amazonas: Xingu
95	<i>Metynnis cf. argenteus</i> Ahl 1923	<i>Metynnis cf argenteus 1</i>	ROM 86134	t06595		Suriname	Corantijn
96	<i>Metynnis fasciatus</i> Ahl 1931	<i>Metynnis fasciatus 1</i>	tba ROM	MK-18-012		Peru	Amazonas: Nanay
97	<i>Metynnis fasciatus</i> Ahl 1931	<i>Metynnis fasciatus 2</i>	tba ROM	MK-18-014		Peru	Amazonas: Nanay
98	<i>Metynnis cf. guaporensis</i> Eigenmann 1915	<i>Metynnis cf guaporensis</i>	UMMZ 250562	UMMZ T00683		Guyana	Essequibo: Rewa River
100	<i>Metynnis hypsauchen</i> (Müller & Troschel 1844)	<i>Metynnis hypsauchen 1</i>	ROM 87023	t8260		Guyana	Berbice
99	<i>Metynnis hypsauchen</i> (Müller & Troschel 1844)	<i>Metynnis hypsauchen 2</i>	ANSP 199545	t1278	ANSP t8923	Brazil	Amazonas: Xingu
103	<i>Metynnis lippincottianus</i> (Cope 1870)	<i>Metynnis lippicottiaus 1</i>	tba ROM	MK-18-B		Peru	Amazonas: Nanay
101	<i>Metynnis lippincottianus</i> (Cope 1870)	<i>Metynnis lippicottiaus 2</i>	INPA 47353	t3853	ANSP t12699	Brazil	Amazonas: Xingu
102	<i>Metynnis lippincottianus</i> (Cope 1870)	<i>Metynnis lippicottiaus 3</i>	INPA 47353	t3854	ANSP t12700	Brazil	Amazonas: Xingu
104	<i>Metynnis cf. longipinnis</i> Zarske & Géry 2008	<i>Metynnis cf longipinnis</i>	UMMZ 250564	UMMZ T00674		Guyana	Essequibo: Rewa River
105	<i>Metynnis luna</i> Cope 1878	<i>Metynnis guaporensis 1</i>	ANSP 198808	t3283	ANSP t12210	Brazil	Amazonas: Xingu
106	<i>Metynnis luna</i> or <i>guaporensis</i> Cope 1878	<i>Metynnis guaporensis 2</i>	INPA 47413	t3281	ANSP t12211	Brazil	Amazonas: Xingu
107	<i>Metynnis cf. luna</i> Cope 1878	<i>Metynnis cf luna 1</i>	ROM 86118	t06561		Guyana	Essequibo
108	<i>Metynnis cf. luna</i> Cope 1878	<i>Metynnis cf luna 2</i>	ROM 86118	t06560		Guyana	Essequibo

109	<i>Metynnis maculatus</i> (Kner 1858)	<i>Metynnis maculatus 1</i>	UMMZ 250564	UMMZ T00673		Guyana	Essequibo: Rewa River
110	<i>Metynnis maculatus</i> (Kner 1858)	<i>Metynnis maculatus 2</i>	UMMZ 250564	UMMZ T00675		Guyana	Essequibo: Rewa River
111	<i>Metynnis</i> sp.	<i>Metynnis</i> sp.	UMMZ 252270	UMMZ T00672		Guyana	Essequibo: Rewa River
112	<i>Mylesinus paucisquamatus</i> Jégu & Santos 1988	<i>Mylesinus paucisquamatus 1</i>	tba ROM	MK-18-003		Brazil	Amazonas: Jari
113	<i>Mylesinus paucisquamatus</i> Jégu & Santos 1988	<i>Mylesinus paucisquamatus 2</i>	tba ROM	MK-18-004		Brazil	Amazonas: Jari
114	<i>Myleus</i> cf. <i>knerii</i> (Steindachner 1881)	<i>Myleus</i> cf. <i>knerii</i>	ROM 86416	t06997		Guyana	Essequibo: Rupununi
115	<i>Myleus pacu</i> (Jardine 1841)	<i>Myleus pacu 1</i>	AUM 47855	G07-093	AUFT 3042	Guyana	Essequibo River
119	<i>Myleus</i> cf. <i>setiger</i> Müller & Troschel 1844	<i>Myleus</i> cf. <i>setiger 1</i>	PUJ			Venezuela	Parucito:Ventuari
120	<i>Myleus</i> cf. <i>setiger</i> Müller & Troschel 1844	<i>Myleus</i> cf. <i>setiger 2</i>	UMMZ 250650	UMMZ T00829		Guyana	Essequibo: Rewa River
116	<i>Myleus setiger</i> Müller & Troschel 1844	<i>Myleus setiger 1</i>	ANSP 197912	t3546	t12474	Brazil	Amazonas: Xingu
118	<i>Myleus setiger</i> Müller & Troschel 1844	<i>Myleus setiger 2</i>	ROM	t9693		Guyana	Essequibo: Rupununi
117	<i>Myleus setiger</i> Müller & Troschel 1844	<i>Myleus setiger 3</i>	ROM	t6914		Guyana	Essequibo: Rupununi
121	<i>Myloplus rubripinnis</i> (Müller & Troschel 1844)	<i>Myloplus arnoldi 1</i>	ANSP 195980	t2771	t10913	Brazil	Amazonas: Xingu: Iriri
122	<i>Myloplus arnoldi</i> Ahl 1936	<i>Myloplus arnoldi 2</i>	ANSP 193058	B2132	t5915	Brazil	Amazonas: Xingu
123	<i>Myloplus asterias</i> (Müller & Troschel 1844)	<i>Myloplus asterias 1</i>	ROM 97246	t18308		Guyana	Berbice
124	<i>Myloplus asterias</i> (Müller & Troschel 1844)	<i>Myloplus asterias 2</i>	ROM 101260	t21670M		Guyana	Essequibo: Mazaruni
126	<i>Myloplus lucienae</i> Andrade, Ota, Bastos & Jégu 2016	<i>Myloplus</i> cf. <i>lucienae</i>		AUM p4661		locality unknown	locality unknown
127	<i>Myloplus planquettei</i> Jégu, Keith & Le Bail 2003	<i>Myloplus planquettei 1</i>	ROM 102376	t23037		Suriname	Saramacca
128	<i>Myloplus planquettei</i> Jégu, Keith & Le Bail 2003	<i>Myloplus planquettei 2</i>	ROM 102441	t23116		Suriname	Saramacca
133	<i>Myloplus</i> cf. <i>rhomboidalis</i> (Cuvier 1818)	<i>Myloplus</i> cf. <i>rhomboidalis</i>	PUJ tbd	ROM t26513	MK-010	Colombia	Orinoco: Vaupes
131	<i>Myloplus rhomboidalis</i> (Cuvier 1818)	<i>Myloplus rhomboidalis 1</i>	ROM 101260	t21669F		Guyana	Essequibo: Mazaruni
132	<i>Myloplus rhomboidalis</i> (Cuvier 1818)	<i>Myloplus rhomboidalis 2</i>	ROM 102444	t23210		Suriname	Saramacca
129	<i>Myloplus rhomboidalis</i> (Cuvier 1818)	<i>Myloplus rhomboidalis 3</i>	ROM 98019	t18919		Suriname	Corantijn
130	<i>Myloplus rhomboidalis</i> (Cuvier 1818)	<i>Myloplus rhomboidalis 4</i>	ROM 100574	t20182		Suriname	Corantijn
134	<i>Myloplus rubripinnis</i> (Müller & Troschel 1844)	<i>Myloplus rubripinnis 1</i>	AUM 43899	V5553	AUFT 3051	Venezuela	Orinoco
135	<i>Myloplus rubripinnis</i> (Müller & Troschel 1844)	<i>Myloplus rubripinnis 2</i>	ROM 96256	t16811		Guyana	Essequibo: Kuyuwini
136	<i>Myloplus rubripinnis</i> (Müller & Troschel 1844)	<i>Myloplus rubripinnis 3</i>	ROM 96256	t16830		Guyana	Essequibo: Kuyuwini

139	<i>Myloplus schomburgkii</i> (Jardine 1841)	<i>Myloplus schomburgkii 1</i>	ROM 88293	t9434		Venezuela	Orinoco: Atabapo
137	<i>Myloplus schomburgkii</i> (Jardine 1841)	<i>Myloplus schomburgkii 2</i>	ANSP 194779	t0546	t8191	Brazil	Amazonas: Xingu
138	<i>Myloplus schomburgkii</i> (Jardine 1841)	<i>Myloplus schomburgkii 3</i>	ROM 88932	t7186		Peru	Amazonas: Nanay
141	<i>Myloplus taphorni</i> Andrade, López-Fernández & Liverpool 2019	<i>Myloplus taphorni 1</i>	ROM 101261	t21742		Guyana	Essequibo: Mazaruni
140	<i>Myloplus taphorni</i> Andrade, López-Fernández & Liverpool 2019	<i>Myloplus taphorni 2</i>	ROM 101261	t21730		Guyana	Essequibo: Mazaruni
142	<i>Myloplus taphorni</i> Andrade, López-Fernández & Liverpool 2019	<i>Myloplus taphorni 3</i>	ROM 102709	t21809		Guyana	Essequibo: Mazaruni
143	<i>Myloplus ternetzi</i> (Norman 1929)	<i>Myloplus ternetzi 1</i>	ANSP 188689	6984	t1626	Suriname	Maroni: Lawa
144	<i>Myloplus ternetzi</i> (Norman 1929)	<i>Myloplus ternetzi 2</i>	ROM 97890	t18664		Suriname	Maroni
145	<i>Myloplus cf. torquatus</i> (Kner 1858)	<i>Myloplus torquatus1</i>	PUJ tbd	ROM t26429	MK-22	Colombia	Orinoco: Vaupes
125	<i>Myloplus torquatus</i> (Kner 1858)	<i>Myloplus torquatus2</i>	tba ROM	ROM t26644	MK-039	Peru	Amazonas: Nanay
146	<i>Mylossoma</i> sp.	<i>Mylossoma sp. 1</i>	AUM 50347	P6074	AUFT 3733	Peru	Amazonas: Marañón
147	<i>Mylossoma albiscopum</i> (Cope 1872)	<i>Mylossoma albiscopum 1</i>	PUJ tbd			Colombia	Amazonas
149	<i>Mylossoma albiscopum</i> (Cope 1872)	<i>Mylossoma duriventre 1</i>	ANSP 198905	t4877	t12979	Venezuela	Orinoco: Apure
148	<i>Mylossoma aureum</i> (Spix & Agassiz 1829)	<i>Mylossoma aureum 1</i>	ANSP 178147	1725	t3861	Peru	Amazonas: Napo
152	<i>Ossubtus xinguense</i> Jégu 1992	<i>Ossubtus xinguense 1</i>	ANSP 194758	t0503	t8148	Brazil	Amazonas: Xingu
150	<i>Ossubtus xinguense</i> Jégu 1992	<i>Ossubtus xinguense 2</i>	INPA 13195	GO-253		Brazil	Amazonas: Xingu: Iriri
151	<i>Ossubtus xinguense</i> Jégu 1992	<i>Ossubtus xinguense 3</i>	INPA 38073	B2147	t5930	Brazil	Amazonas: Xingu
153	<i>Piaractus brachypomus</i> (Cuvier 1818)	<i>Piaractus brachypomus 1</i>	PUJ	ROM t26507		Colombia	Amazonas
154	<i>Piaractus brachypomus</i> (Cuvier 1818)	<i>Piaractus brachypomus 2</i>	ROM 79182	ROM t00349		locality unknown	locality unknown
155	<i>Piaractus mesopotamicus</i> (Holmberg 1887)	<i>Piaractus mesopotamicus 1</i>	ANSP 182451	A5113	ANSP t511	Argentina	Paraná
156	<i>Pristobrycon aureus</i> (Spix & Agassiz 1829)	<i>Pristobrycon aureus 1</i>	UMMZ 250945	UMMZ T01191		Guyana	Essequibo: Rupununi
158	<i>Pristobrycon aureus</i> (Spix & Agassiz 1829)	<i>Pristobrycon aureus 2</i>	UMMZ 251259	UMMZ T01232		Guyana	Essequibo: Rupununi
157	<i>Pristobrycon aureus</i> (Spix & Agassiz 1829)	<i>Pristobrycon aureus 3</i>	UMMZ 251259	UMMZ T01231		Guyana	Essequibo: Rupununi
159	<i>Pristobrycon calmoni</i> (Steindachner 1908)	<i>Pristobrycon calmoni 1</i>	ROM 67437	t05407		Guyana	Waini River
160	<i>Pristobrycon careospinus</i> Fink & Machado-Allison 1992	<i>Pristobrycon cf careospinus 1</i>	PUJ	MK-002		Colombia	Orinoco: Vaupes
166	<i>Pristobrycon striolatus</i> (Steindachner 1908)	<i>Pristobrycon striolatus 1</i>	MNHN 1988-1573			Suriname	Maroni
165	<i>Pristobrycon striolatus</i> (Steindachner 1908)	<i>Pristobrycon striolatus 2</i>	ANSP 188672	7031	t1631	Suriname	Maroni: Litanie

163	<i>Pristobrycon striolatus</i> (Steindachner 1908)	<i>Pristobrycon striolatus 3</i>	ANSP 197515	t2333	t10494	Brazil	Amazonas: Xingu
164	<i>Pristobrycon striolatus</i> (Steindachner 1908)	<i>Pristobrycon striolatus 4</i>	ANSP 198809	t3261	t12228	Brazil	Amazonas: Xingu
167	<i>Pygocentrus cariba</i> (Humboldt 1821)	<i>Pygocentrus cariba 1</i>	ANSP 198959	t4716	ANSP t13040	Venezuela	Orinoco: Apure
168	<i>Pygocentrus cariba</i> (Humboldt 1821)	<i>Pygocentrus cariba 2</i>	ANSP 198959	t4717	ANSP t13041	Venezuela	Orinoco: Apure
169	<i>Pygocentrus nattereri</i> Kner 1858	<i>Pygocentrus nattereri 1</i>	ANSP 197517	t2340	ANSP t10501	Brazil	Amazonas: Xingu
170	<i>Pygocentrus nattereri</i> Kner 1858	<i>Pygocentrus nattereri 2</i>	ROM 85941	t06527		Guyana	Amazonas: Negro
171	<i>Pygocentrus piraya</i> (Cuvier 1819)	<i>Pygocentrus piraya 1</i>	tba ROM			Brazil	São Francisco
172	<i>Pygocentrus piraya</i> (Cuvier 1819)	<i>Pygocentrus piraya 2</i>	tba ROM			Brazil	São Francisco
173	<i>Pygopristis denticulata</i> (Cuvier 1819)	<i>Pygopristis denticulata 1</i>	ANSP 206125	T09865		Venezuela	Orinoco
174	<i>Pygopristis denticulata</i> (Cuvier 1819)	<i>Pygopristis denticulata 2</i>	G. Ortí	GO-412		locality unknown	locality unknown
175	<i>Pygopristis denticulata</i> (Cuvier 1819)	<i>Pygopristis denticulata 3</i>	UMMZ 250939	UMMZ T01161		Guyana	Essequibo: Rupununi
176	<i>Serrasalmus altispinis</i> Merckx, Jégu & Santos 2000	<i>Serrasalmus altispinis 1</i>	ROM 97979	t18869		Suriname	Maroni (Marowijne)
177	<i>Serrasalmus altispinis</i> Merckx, Jégu & Santos 2000	<i>Serrasalmus altispinis 2</i>	ROM 97979	t18871		Suriname	Maroni (Marowijne)
178	<i>Serrasalmus altuvei</i> Ramírez 1965	<i>Serrasalmus altuvei 1</i>	G. Ortí	HLF-247		Venezuela	Orinoco: Río Cinaruco
179	<i>Serrasalmus altuvei</i> Ramírez 1965	<i>Serrasalmus altuvei 2</i>	ROM	t02549		Venezuela	Orinoco: Casiquiare
180	<i>Serrasalmus brandtii</i> Lütken 1875	<i>Serrasalmus brandtii 1</i>	G. Ortí	GO-408		Brazil	São Francisco
181	<i>Serrasalmus cf. gibbus</i> Castelnau 1855	<i>Serrasalmus cf gibbus 1</i>	tba ROM	MK-18-015		locality unknown	pet trade
182	<i>Serrasalmus hastatus</i> Fink & Machado-Allison 2001	<i>Serrasalmus hastatus 1</i>	G. Ortí	GOLABS3		locality unknown	locality unknown
183	<i>Serrasalmus compressus</i> Jégu, Leão & Santos 1991	<i>Serrasalmus compressus 1</i>	UMMZ 250776	UMMZ T00907		Guyana	Essequibo: Rewa River
184	<i>Serrasalmus compressus</i> Jégu, Leão & Santos 1991	<i>Serrasalmus compressus 2</i>	UMMZ 250827	UMMZ T00970		Guyana	Essequibo: Rewa River
162	<i>Pristobrycon cf. eigenmanni</i> (Norman 1929)	<i>Serrasalmus cf eigenmanni 1</i>	ANSP 188683	6928	t1627	Suriname	Maroni: Lawa
161	<i>Serrasalmus maculatus</i> Kner 1858	<i>Serrasalmus cf eigenmanni 2</i>	ANSP 196873	t2220	t10388	Brazil	Amazonas: Xingu
186	<i>Serrasalmus eigenmanni</i> Norman 1929	<i>Serrasalmus eigenmanni 1</i>	ROM 97245	t18297		Guyana	Berbice
187	<i>Serrasalmus eigenmanni</i> Norman 1929	<i>Serrasalmus eigenmanni 2</i>	ROM 100579	t20167		Suriname	Corantin
185	<i>Serrasalmus eigenmanni</i> Norman 1929	<i>Serrasalmus eigenmanni 3</i>	ROM 86351	t06269		Guyana	Essequibo: Rupununi
188	<i>Serrasalmus elongatus</i> Kner 1858	<i>Serrasalmus elongatus 1</i>	ANSP 196874	t2215	ANSP t10383	Brazil	Amazonas: Xingu
189	<i>Serrasalmus elongatus</i> Kner 1858	<i>Serrasalmus elongatus 2</i>	ROM 98848	t19528		Peru	Amazonas: Nanay

190	<i>Serrasalmus elongatus</i> Kner 1858	<i>Serrasalmus elongatus 3</i>	ROM 98848	t19529		Peru	Amazonas: Nanay
191	<i>Serrasalmus geryi</i> Jégu & Santos 1988	<i>Serrasalmus geryi 1</i>	ROM 105321	t04783		Brazil	Amazonas: Tocantins
193	<i>Serrasalmus gouldingi</i> Fink & Machado-Allison 1992	<i>Serrasalmus gouldingi 1</i>	AUM 43730	V5270	AUFT 3045	Venezuela	Río Negro : Río Amazonas
194	<i>Serrasalmus irritans</i> Peters 1877	<i>Serrasalmus irritans 1</i>	AUM 54065	T09042		Venezuela	Orinoco: Apure
195	<i>Serrasalmus maculatus</i> Kner 1858	<i>Serrasalmus maculatus 1</i>	ROM 103433	t24153		Uruguay	Río Uruguay
196	<i>Serrasalmus maculatus</i> Kner 1858	<i>Serrasalmus maculatus 2</i>	ROM 103433	t24155		Uruguay	Río Uruguay
199	<i>Serrasalmus manueli</i> (Fernández-Yépez & Ramírez 1967)	<i>Serrasalmus manueli 1</i>	AUM 43731	V5269	AUFT 3054	Venezuela	Casiquiare
197	<i>Serrasalmus manueli</i> (Fernández-Yépez & Ramírez 1967)	<i>Serrasalmus manueli 2</i>	ANSP 198074	t3446	t12381	Brazil	Amazonas: Xingu
198	<i>Serrasalmus manueli</i> (Fernández-Yépez & Ramírez 1967)	<i>Serrasalmus manueli 3</i>	ANSP 198074	t3457	t12391	Brazil	Amazonas: Xingu
200	<i>Serrasalmus medinae</i> Ramírez 1965	<i>Serrasalmus medinae 1</i>	AUM 54056	t09777		Venezuela	Orinoco: Ventuari
201	<i>Serrasalmus medinae</i> Ramírez 1965	<i>Serrasalmus medinae 2</i>	ROM	t9710		Venezuela	Orinoco: Ventuari
202	<i>Serrasalmus rhombeus</i> (Linnaeus 1766)	<i>Serrasalmus rhombeus 1</i>	ANSP 195066	t0606	t8251	Brazil	Amazonas: Xingu
203	<i>Serrasalmus rhombeus</i> (Linnaeus 1766)	<i>Serrasalmus rhombeus 2</i>	PUJ			Colombia	Orinoco: Vaupes
205	<i>Serrasalmus rhombeus</i> (Linnaeus 1766)	<i>Serrasalmus rhombeus 3</i>	ROM	t20168		Suriname	Corantijn
204	<i>Serrasalmus rhombeus</i> (Linnaeus 1766)	<i>Serrasalmus rhombeus 4</i>	ROM 96128	t16619		Guyana	Essequibo: Kuyuwini
206	<i>Serrasalmus serrulatus</i> (Valenciennes 1850)	<i>Serrasalmus serrulatus 1</i>	G. Ortí	GOLAB-224		Brazil	Río Solimoes
207	<i>Serrasalmus spilopleura</i> Kner 1858	<i>Serrasalmus spilopleura 1</i>	G. Ortí	SW2548		Brazil	Amazonas: Río Negro
208	<i>Tometes ancyloerhynchus</i> Andrade, Jégu & Giarrizzo 2016	<i>Tometes ancyloerhynchus 1</i>	tba ROM			Brazil	Amazonas: Jari
209	<i>Tometes ancyloerhynchus</i> Andrade, Jégu & Giarrizzo 2016	<i>Tometes ancyloerhynchus 2</i>	tba ROM			Brazil	Amazonas: Jari
210	<i>Tometes kranponhah</i> Andrade, Jégu & Giarrizzo 2016	<i>Tometes kranponhah 1</i>	ANSP 193019	B2042	t5841	Brazil	Amazonas: Xingu: Iriri
211	<i>Tometes kranponhah</i> Andrade, Jégu & Giarrizzo 2016	<i>Tometes kranponhah 2</i>	ROM	t15496		Brazil	Amazonas: Xingu: Iriri
212	<i>Tometes lebailli</i> Jégu, Keith & Belmont-Jégu 2002	<i>Tometes lebailli 1</i>	ANSP 187099	6983	t1633	Suriname	Maroni: Lawa
213	<i>Tometes lebailli</i> Jégu, Keith & Belmont-Jégu 2002	<i>Tometes lebailli 2</i>	ANSP 188681	7022	t1634	Suriname	Maroni: Litanie
214	<i>Tometes trilobatus</i> Valenciennes 1850	<i>Tometes trilobatus 1</i>	UMMZ 250855	UMMZ T00971		Guyana	Essequibo: Rewa River
215	<i>Utariichthys cf. longidorsalis</i> Jégu, de Morais & Santos 1992	<i>Utariichthys aff longidorsalis 1</i>	ANSP 180811	P4365	t611	Venezuela	Casiquiare

*represent taxa dropped from analyses due to few loci